

**U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641**

DETERMINATION OF NEPA ADEQUACY (DNA)

NUMBER: DOI-BLM-CO-110-2012-0021-DNA

CASEFILE/PROJECT NUMBER: COC-64814

8502D-23 L24 496 (L24 496)
8502E-23 L24 496
8502F-23 L24 496
8502G-23 L24 496
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PROJECT NAME: EnCana Oil and Gas, L24 496 new well pad - 28 APDs

LEGAL DESCRIPTION: T4S, R96W, NWSW Section 24

APPLICANT: EnCana Oil and Gas (EnCana)

DESCRIPTION OF PROPOSED ACTION: Due to timing of the drilling rig, construction of the well pad is proposed to commence on May 1, 2012.

EnCana proposes to construct one gas well pad (L24 496), pipeline corridor(s) 9,380 feet long by 120 feet wide for an estimated 25.80 acres of disturbance, and improve an existing road all on private surface (1,360 feet by 30 feet) for total disturbance of 0.90 acres to access the well pad (See Figures 1-4). The well pad is proposed to have working surface dimensions of 408 feet long by 284 feet wide for total well pad surface disturbance of 8.70 acres. Following interim reclamation 2.00 acres will be needed on the well pad during production. Details of the proposed construction are included in Table 1 below.

Table 1 – Acreage disturbance of Proposed Action L24 496

	Dimensions (length x width) feet	Surface disturbance prior to interim reclamation (acres)	Surface disturbance following interim reclamation (acres)
Well pad	408 x 284 (working area)	8.70 (total well pad construction disturbance)	2.00
Pipeline	8,200 x 120	22.50	0.00
Pipeline	1,180 x 120	3.30	0.00
Road upgrade	1,360 x 30	0.90	0.90
Total		35.40	2.90

Design Features:

Existing Roads:

- Existing roads will be maintained in the same or better condition as existed prior to the commencement of operations. Maintenance will continue until final abandonment and reclamation of the well location. Excessive rutting or other surface disturbance will be avoided.

Planned Access Roads:

- The roadway length from its turnoff from the existing road to the SG L24 496 pad (1,360 feet) will be improved to all weather conditions for safety considerations and for the anticipated truck traffic. All road work will be done according to BLM Manual Section 9113 standards.
- Access road disturbance will be approximately 18-22 feet wide, with a 30 foot construction width.
- The maximum grade on the proposed access road will be approximately four percent.
- The topsoil along the road will be stripped. Topsoil berms will be constructed generally parallel to the road.
- All cut and fill slopes will be seed bed prepped and revegetated.
- Two 18 inch culverts (or size installed based on need) will be installed at the entrance of the pad, as well as two bar ditches along the entrance to the pad.
- There will be no major cut and fills on the road.
- Crushed aggregate gravel will be used for road surfacing.
- Capping or sloping and dipping the roadbed as necessary will be required to provide a well-constructed and safe road.

- Prior to upgrading, the roadway shall be cleared of any snow cover and allowed to dry completely.
- No gates, cattleguards, or fence cuts are required.
- Road maintenance - during the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and legal condition and will be maintained in accordance with the original construction standards. The access road will be kept free of trash during operations.
- Dust will be controlled on the roads and location during construction and drilling by periodic watering of the roads and location.
- If the well is a producer, EnCana will upgrade and maintain access roads as necessary to prevent soil erosion and accommodate year round traffic.

Location of Existing and/or Proposed Facilities:

- EnCana will install the following pipelines into a new 120 foot ROW:
 - approximately 9,380 feet long by 120 feet wide = 25.80 estimated acres of disturbance.
 - EnCana intends to install (details of 9,380 feet of pipeline below):
 - One three phase gas line - diameter may be up to 20 inches
 - One frac line - diameter may be to 10 inches
 - An eight inch gas lift line
 - An eight inch water line
 - A 12 inch flow back line
 - The 12 inch flow back line will run from EnCana's proposed L24 496 location 8,200 feet to EnCana's Central Delivery Point (CDP) in the NWSE of Section 25, T4S, R96W.
 - A 10 inch frac line and 12 inch flowback line will continue from the CDP 1,180 feet to EnCana's frac pad.
 - It is EnCana's intention to bury the pipelines.
- All disturbances will be reclaimed according to BLM requirements.
- The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable, arrangements will be made to acquire appropriate materials from private sources.
- A dike will be constructed completely around any production facilities which contain fluids (i.e., production tanks, produced water tanks, etc.). The dikes will be constructed of compacted subsoil, be impervious, be lined with a minimum 24 mil impermeable liner, and hold 110 percent of the capacity of the largest tank and be independent of the back cut.
- All permanent (onsite for six months or longer) above-the-ground constructed or installed facilities, including pumping units, will be painted a flat non-reflective, earth tone color to match one of the standard environmental colors as determined by the five State Rocky Mountain Interagency committee. All production facilities will be painted within six months of installation. Facilities that are required to comply with Occupational Health and Safety Act Rules and Regulations will be excluded from this painting requirement.
- Runoff and sediment Best Management Practices will be implemented and maintained according to the Piceance Creek Storm Water Management Plan.

- EnCana shall protect all survey monuments, witness corners, reference monuments and bearing trees in the affected areas against disturbance during construction, operation, maintenance and termination of the facilities authorized herein.
- During drilling and subsequent operations, all equipment and vehicles will be confined to the access road right of way and any additional areas as specified in the approved Application for Permit to Drill (APD).
- Interim reclamation of disturbed areas no longer needed for drilling/completion operations will be accomplished by grading, leveling and seeding as recommended by the BLM.
- EnCana will be responsible for road maintenance from the beginning to completion of operations.
- The production equipment may consist of one 500 barrel water tank. Pad sales meters and buildings (approximately six feet by six feet) one building for each quad (four wells) and 28 gas lift meters, with six meters per house (total of five).

Location and Type of Water Supply:

- Water to be used for the drilling and completing of the 28 wells may be delivered to the location via pumping through an eight inch diameter steel water pipeline using an approved ROW, or hauling by truck over the roads described in “Existing Roads” and “Planned Access Roads” sections of the Surface Use Plan. The water source may be from:
 - Recycled flow back water (frac water from completion operations), production water gathered from producing wells, or some combination thereof resulting from ongoing operations in the Piceance Basin that may be treated for reuse.
 - Fresh water from available water rights in the Piceance Basin.
- The water provider is EnCana. During free water conditions fresh water will be pulled from West Fork on our North Parachute Ranch. In the event of a call on water, EnCana will exercise their industrial rights. EnCana maintains numerous water rights in Piceance Creek or its tributaries and the Colorado River.
- The estimated amount of water used for construction, drilling and dust abatement is 5,000 barrels of fresh water per well. Completions will use approximately 100,000 barrels of water per well of either produced or recycled water.

Source of Construction Materials:

- All necessary materials for earthwork construction are on this location. EnCana will not be borrowing materials from any other location.
- Root balls shall be buried or placed off location or access road to be scattered back over the disturbed area as part of the final reclamation.
- There will be no additional fill required.

Methods of Handling Waste Materials:

- Cuttings will be deposited in a steel cuttings bin (approximately 45 feet by 10 feet by 12 feet) and cuttings pile.
- Cuttings Management: cuttings deposited in the steel pit will be solidified with sawdust. Cuttings will be moved from the steel pit to the cuttings area, which is the south area of the location marked as such. The cuttings will be managed per the COGCC regulations. For reclamation, EnCana buries the cuttings on location in the cut slope and caps with three feet of subsoil material then spreads topsoil, seeds, and applies appropriate stormwater management BMPs.

- The steel cuttings bin and flare ditch will be constructed on the existing location and will not be located in natural drainages where a flood hazard exists or surface runoff will destroy or damage the pit walls. All pits will be constructed so as not to leak, break, or allow the discharge of liquids. All pits will be constructed, operated and maintained in accordance with the applicable BLM/COGCC rules and regulations.
- Drilling fluids are contained in a closed loop system. When drilling on a location is finished the fluids are dewatered and transferred by truck to another location.
- In the event that adverse weather conditions prevent removal of the fluids from the mud system within an appropriate time period, an extension by written request from EnCana may be submitted to the Authorized Officer (AO).
- Salts are not encountered while drilling and EnCana does not use salt based mud.
- Chemicals are stored on location in secondary containment and used as necessary to treat mud. The chemicals are contained, used in the mud, or transferred to another location.
- Produced fluids – liquid hydrocarbons produced during natural gas production operations will be confined to flow back tanks on location. Produced fluids may be recycled and reused in drilling/fracing operations on other area wells or locations.
- Excess water may be piped or trucked to permitted EnCana-owned disposal wells and/or trucked to a licensed commercial disposal facility. The commercial disposal facility is Danish Flats Environmental Service, Inc. Office Headquarters: 616 W. Monument St., Colorado Springs, CO 80905, (719)-598-9735. Disposal Site (Evaporation Facility) I-70 at Exit 214 Cisco, UT. Water hauling will be done by either Knowles Trucking (970)-434-1912 or RNI Trucking (970) 250-6495.
- Sewage – self-contained, chemical toilets will be provided for human waste disposal.
- Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents disposed of by P.T.I Group USA (PO Box 670 Vernal, UT 84078 (435)-789-0872) and taken to the Clifton Land Farm.
- Garbage and other waste material – garbage, trash and other waste materials will be collected in a portable, self-contained and fully enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of by Western Colorado Waste Service (1847 7 RD Mack, CO 81525 (970)-858-7518). The trash will be disposed of at either the Mesa County Landfill or the City of Rifle Garfield County Landfill. No trash will be burned on location.
- Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No adverse materials will be left on the location.
- Any spills of oil, gas, and other potentially hazardous substances will be reported immediately to the BLM, and other responsible parties, and will be mitigated immediately, as appropriate, through clean up or removal to an approved disposal site.

Ancillary Facilities:

- Self-contained travel-type trailers may be used on site during drilling operations.
- Certified Colorado Department of Housing units will be provided for use in the extraction of gas on COGCC approved pads. These units will be used by Essential Personnel and will abide by Federal, State, and local regulations which directly pertain to Temporary Employee Housing (TEH) or Temporary Living Quarters (TLQ), depending on the County in which extraction will be taking place.

- Potable water will be provided by water haulers certified by the Colorado Department of Public Health and Environment.
- Septic will be held in county approved engineered ISDS Vault and Haul systems.
- Waste materials generated by and from these units will be contained in wildlife proof containers and will be hauled weekly, or as needed.
- A centralized frac pad will be utilized on the SG J25 496 pad for completion operations.
- The existing J25 496 CDP (Central Delivery Point) site will be used. The CDP site will not require any upgrades or expansion and no additional surface disturbance will occur at this time.

Wellsite Layout:

- All suitable topsoil material will be stripped and stockpiled, (topsoil to be stripped from this location, including the areas of cut, fill and/or subsoil storage) and stockpiled for future reclamation of the well site. The windrowed and/or stockpiled topsoil will be seeded after construction is completed. There is no excess balance on this location.
- Topsoil conservation practices include stockpiling and/or windrowing available topsoil. The stockpiles are to be track walked perpendicular to contour with a convex top and concave bottom then seeded and mulched. Depth and width will vary with availability and stormwater requirements. The estimated depth of the windrowed/stockpiled topsoil may vary between six inches to 10 feet.
- Soil Unit Name: Parachute-Rhone Loams (soil map unit 53) with five to 30 percent slope.
- Ecological site: Mountain Loam; Drainage class: well drained. Typical profile: 0 to 8 inches: loam; 8 to 28 inches: sandy clay loam; 28 to 52 inches: very channery sandy clay loam; 52 to 56 inches: unweathered bedrock.
- In general, materials will be moved and returned according to a last out first in method. No excessive rock was identified at the on-site.
- The flare ditch will be unlined.
- The L24 496 pad is likely to have a small amount of standing water. This pad is designed to contain stormwater. Engineered designs have been included in pad layout exhibits to accommodate major stormwater events and interim reclamation concerns.
- Methods of stabilization: Local factors will be evaluated to determine what BMPs are suitable and practical at the time of construction. BMPs will be employed in different combinations during construction activities and phases as conditions warrant. The following BMPs may be used: erosion control blankets, hydroseeding, terracing, vegetated buffers, topsoil stockpiles, etc. The tracked linear windrows promote topsoil stabilization because of compaction and reduced slope percent. The windrows are also seeded and hydro-mulched with a hydraulic erosion control mulch.
- To control drainage, Local factors will be evaluated to determine what BMPs are suitable and practical at the time of construction. BMPs will be employed in different combinations during construction activities and phases as conditions warrant. The following BMPs may be used: toe berm, level spreader, run-on protection, etc.
- For sediment control, Local factors will be evaluated to determine what BMPs are suitable and practical at the time of construction. BMPs will be employed in different combinations during construction activities and phases as conditions warrant. The following BMPs may be used: stabilized construction entrance, sediment reservoirs, sediment traps, detention pond, slash, wattle, etc.

Plans for Reclamation of the Surface:

- Production (Interim/Final Reclamation): The BLM will be contacted prior to commencement of any reclamation operations.
- Immediately upon well completion, the well location and surrounding areas(s) will be cleared of all debris, materials, trash and junk not required for production.
- Upon completion of the initial 16 wells, Encana will evaluate the economics of the area. There is a possibility of three different scenarios:
 - a) Assuming the area proves to be economic, EnCana may return to drill the remaining 12 wells that are planned for this location. Interim reclamation will be applied within six months of the completion of the 28th well to all wells.
 - b) If the area is not economic enough at this time to warrant drilling the remaining 12 wells within a reasonable timeframe (one year) then interim reclamation will be applied to the first 16 wells within one year.
 - c) If the wells are not economic at all the wells may be plugged and final reclamation standards will be applied to the pad.
- The pad will be reclaimed except the working area which is usually 100 feet off wellheads and 10-15 feet around production equipment. The proposed reclaimed pad with all 28 wells is approximately 2.00 acres.
- Waste and spoil materials will be disposed of immediately upon completion of drilling and work-over activities.
- The portion of the location and access road not needed for production facility/operations will be reclaimed within six months from the date of well completion, weather permitting.
- If the well is a producer, EnCana will upgrade and maintain access roads as necessary to prevent soil erosion, and accommodate year round traffic. Areas unnecessary to operations will have areas reshaped. Topsoil will be redistributed and disked. All areas outside the work area will be re-seeded according to the BLM recommendations for seed mixture.
- All cuttings areas and detention ponds will be closed as soon as possible. If netting has been installed it will remain in place until deemed appropriate to remove in order to protect migratory waterfowl.
- A stormwater permit for the Piceance Creek Area has been received from the Colorado Department of Public Health and Environment, Water Quality Control Division.
- Methods of stabilization: Local factors will be evaluated to determine what BMPs are suitable and practical at the time of construction. BMPs will be employed in different combinations during construction activities and phases as conditions warrant. The following BMPs may be used: revegetation, rip rap, diversion ditch, etc.
- Control drainage: Local factors will be evaluated to determine what BMPs are suitable and practical at the time of construction. BMPs will be employed in different combinations during construction activities and phases as conditions warrant. The following BMPs may be used: culverts, run-on protection berm, diversion ditch, etc.
- Sediment control: Local factors will be evaluated to determine what BMPs are suitable and practical at the time of construction. BMPs will be employed in different combinations during construction activities and phases as conditions warrant. The following BMPs may be used: run-on protection, detention pond, diversion ditch, etc.

- During interim and final reclamation of the site, fill material will be pushed into cuts and up over the back slope. EnCana may construct sediment traps/reservoirs to maintain compliance with the state. Topsoil will be distributed evenly over the location and seeded according to the recommended seed mixture. The access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- For interim and final reclamation topsoil will be redistributed and disked.
- All areas outside the work area will be re-seeded according to the BLM recommendation for seed mixture. Upon completion of backfilling, leveling and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed area(s).
- Segregation of topsoil material and replacement of topsoil in its respective position (last out, first in) method will assist in the re-establishment of soil health and productivity. Topsoil will also be placed on its respective slopes, i.e. oakbrush shrub soil and pinyon juniper woodland soil will not be mixed. Prior to re-seeding, all disturbed surfaces will be scarified and left with a rough surface. All disturbed surfaces will be re-seeded according to the BLM recommendation for seed mixture.
- Slash/brush will be pushed to the terminal edge of disturbance along probable discharge edges as vegetation sediment control and during the life span of the site and kept in place to cold compost for final reclamation.
- There will be no additional fill required.
- The fill will be separated mechanically and placed in one to two foot lifts using a dozer and blade.
- At final reclamation all storm water management BMPs for drainage, sediment and erosion will be removed because the only remaining potential pollution source via stormwater will be runoff sediment. All sediment will be managed through revegetation practices (seeding on contour, crimping straw on contour and/or erosion control hydro-mulch, pocking and topsoil distribution. Perimeter wattles will remain until vegetation establishment meets minimum requirements.
- In general, materials will be moved and returned according to a last out first in method.
- No excessive rock was identified at the on-site.
- The estimated surface disturbance for this well pad and proposed access roads:
 - Approximate Acreage Disturbance
 - Well Disturbance = 8.70
 - Access Road Disturbance = 0.90
 - Pipeline Disturbance 25.80
 - Total = 35.40
 - After reclamation an area of approximately 2.00 acres will remain.
- Weed Control: A Weed Control Plan is on file at the operator's field office and is available for review upon request.
- Pipeline Reclamation:
 - When the pipeline installation phase of the project is completed, the right-of-way will be restored as close as possible to pre-excavated grades and compaction. Topsoil will be redistributed as close to original salvage depths as possible. In areas with pre-existing rocky surface material, the stored rock will be spread over the right-of-way to maintain a surface appearance to that of adjacent undisturbed

terrain. Every effort will be made to install permanent erosion control measures after re-contouring is complete. Any brush that was shredded will be spread evenly across the right-of-way. Seeding will take place with an approved seed mix and application rate provided by others. After seeding is complete the temporary BMPs will be replaced with permanent BMPs and monitored for any malfunctions. BMPs will continue to be inspected and maintained and any areas that do not have re-growth, will be reseeded as necessary until final stabilization is achieved.

- Pipeline reclamation BMPs may include:
 1. Finish grading, drainage, and stormwater control and soil preparation will be completed per Stormwater Site Plans. Stormwater Site Plans include but are not limited to, topsoil conservation/topsoil segregation, windrow, surface roughening, land farming /land grading and water bars.
 2. Seed bed preparation: topsoil will be ripped to remove compaction up to a depth of 12 inches.
 3. Hydraulic amendment, seed, erosion control blanket and erosion control mulch applications as required.
 4. Broadcast amendments, drill seeding and certified weed free straw crimping on slopes 2.5:1 or less as required.
 5. Hydraulic amendment, seed and erosion control mulch applications on remaining areas and any areas found to be deficient.
 6. Specified access road seeding and stormwater repair and modification as required per pre-reclamation meeting.
 7. Seeding contractor is now responsible for acquiring straw that is harvested in a manner to reduce volunteer winter wheat. Wood mulch will also be considered.
 8. In cases of winter wheat germination above 30 percent canopy, it is the seeding contractor's responsibility to ensure the winter wheat does not go to head or compete with the desired species. If there is more winter wheat than desirable species, re-seeding will be required.
- Revegetation contractor is responsible for sediment and pollution discharge control for preconstruction, construction and reclamation activities. This includes but is not limited to sediment removal from bar ditches, sediment traps, culvert inlets, and culvert outlets.
- Final reclamation of the pipeline will be decided at the time of final reclamation per landowner requirements and directives. If for some reason Encana decides to abandon the pipeline during final reclamation it would be cut and capped. The pipeline would be left in place to avoid causing new surface disturbance.

Prevention and Detection of Noxious Weeds:

- a) If noxious weeds are found, they shall be treated (if timing is appropriate) or removed (if plants have formed seeds) prior to ground-disturbing activities to limit weed seed production and dispersal. If the treatment timing is not appropriate for the weed species, ground-disturbing activities may proceed.
- b) All disturbed surfaces shall be promptly revegetated with certified weed-free seed per agency policy. BLM policy is to use native species for revegetation. Exceptions may be granted under certain conditions, such as the use of noninvasive non-native forbs when native forbs are unavailable or unlikely to

succeed due to adverse conditions. Also, non-native, non-persistent sterile grasses may be used to provide ground cover for soil stabilization and weed suppression during temporary reclamation.

c) Topsoil stockpiles shall be promptly re-vegetated to maintain soil microbe health and prevent weeds. Native or non-native, non-persistent sterile grasses may be used to seed stockpiles.

d) Straw, hay, or other mulch used in reclamation shall be certified weed-free.

Inventory and Mapping of Noxious Weeds:

a) The center points of List A and B weed infestations (with the exception of redstem filaree and quackgrass) shall be marked with a GPS unit, or, GPS lines or polygons along or around weed infestations.

b) A Noxious Weed Inventory record shall be completed each time a List A or B weed infestation is inventoried (with the exception of redstem filaree and quackgrass).

c) Inventories for the presence of noxious weeds shall be conducted at least once early in the growing season for all areas disturbed by oil and gas exploration and development. Weeds shall be treated in an appropriate manner if found during inventories. Follow-up inventories and re-treatment during the same growing season may be necessary to provide additional control and/or eradication.

Weed Control:

a) The operator shall implement the best available weed control technique(s) at the appropriate times based on the life history of the weed species.

b) A Pesticide Use Proposal (PUP) shall be approved by the BLM prior to use of herbicides on BLM lands.

c) Only adjuvants and herbicides approved by the BLM shall be applied to BLM lands.

d) A Pesticide Application record shall be filled out each time pesticides are applied to BLM lands. EnCana shall maintain these records for a minimum of three years.

e) All List A species and those List B species designated in Appendix A shall be immediately reported to the appropriate County, BLM, and FS Weed Manager.

e) Herbicide use shall follow application rates, restrictions and warnings listed on the label.

f) In situations where noxious weeds have escaped from the project area into adjacent sites, the infested areas shall be treated to prevent further expansion into un-infested areas and re-infestation of the treated area.

g) The operator shall use pesticide applicators licensed by the Colorado Department of Agriculture.

No Action Alternative: The L24 496 well pad would not be constructed, the 28 wells would not be drilled, the existing road would not be upgraded, and the pipelines would not be installed.

Decision to be Made: The BLM will decide whether or not to approve the APDs, and if so under what conditions.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3)

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Page 2-5

Decision Language: “Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values.”

REVIEW OF EXISTING NEPA DOCUMENTS:

List by name and date all existing NEPA documents that cover the Proposed Action.

Name of Document: White River Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP/FEIS).

Date Approved: June 1996

Name of Document: DOI-BLM-CO-110-2009-0229-EA

Date Approved: February 3, 2010

NEPA ADEQUACY CRITERIA:

1. Is the new Proposed Action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document? If there are differences, can you explain why they are not substantial?

Yes, the project is in an area with similar geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document for the EnCana F25 portion of the EA. DOI-BLM-CO110-2012-0021-DNA project area is within 0.76 miles north of DOI-BLM-CO-110-2009-0229-EA project area, both are at approximately 8,200 feet elevation, and both are within the range site Mountain Loam.

2. Is the range of alternatives analyzed in the existing NEPA document appropriate with respect to the new Proposed Action, given current environmental concerns, interests, and resource values?

Yes, two alternatives (Proposed Action and No Action Alternative) were analyzed in DOI-BLM-CO-110-2009-0229-EA). No reasons were identified to analyze additional

alternatives and these alternatives are considered to be adequate and valid for the Proposed Action.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new Proposed Action?
Yes, the existing analysis is valid in light of any new information or circumstances (such as rangeland health standard assessment, recent endangered species listings, updates list of BLM-sensitive species. In the initial NEPA review of this project by the ID Team, no indication was given to show the existing analysis was no longer valid.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new Proposed Action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

In the context of wildlife habitat, the Proposed Action is virtually identical to the situations described in EA numbers DOI-BLM-CO-110-2009-0229-EA and DOI-BLM-CO-110-2011-0006-EA. In particular, the impact analyses and discussions for the endangered Colorado pike-minnow and BLM-sensitive Brewer's sparrow are identical. With regard to the greater sage-grouse (ESA listing candidate and BLM-sensitive), and as a summary, the Proposed Action lies on the eastern periphery of range occupied by the Parachute-Piceance-Roan (PPR) population of greater sage-grouse and although the habitat is suited for nesting and brood-rearing use, habitat configuration and extent within the predominant mountain shrub matrix is apparently not conducive to sustained support of these functions (see discussion below). Consistent with Encana-Colorado Parks and Wildlife (CPW) wildlife mitigation plan and in coordination with the WRFO the applicant has confined operations to this range fringe for the last several years and has incorporated design features and BMPs that minimize short and long-term declines in habitat availability and reduces the frequency and intensity of behavioral impacts on birds that continue to use this ridgeline. The Proposed Action, as modified by mitigation efforts, contributes incrementally to habitat loss and bird avoidance response in the PPR population, but CPW continues to monitor transient use of this area by telemetered grouse as part of management-oriented research partially funded by the applicant. Notably, the project as guided by the wildlife mitigation plan continues to offers a relatively low risk opportunity to test the efficacy of development and mitigation strategies that may ultimately allow for viable populations of sage-grouse to co-exist with energy-mineral development.

5. Is the public involvement and interagency review associated with existing NEPA documents adequate for the current Proposed Action?
Yes, the public involvement and interagency review associated with existing NEPA documents is adequate for the current Proposed Action. The document was posted to the White River NEPA Register webpage on November 30, 2011.

INTERDISCIPLINARY REVIEW:

The Proposed Action was presented to, and reviewed by, the White River Field Office interdisciplinary team on November 29, 2011. A complete list of resource specialists who participated in this review is available upon request from the White River Field Office. The table below lists resource specialists who provided additional remarks concerning cultural resources and special status species.

Name	Title	Resource	Date
Michael Wolfe Michael Selle	Archaeologists	Cultural Resources, Native American Religious Concerns	11/23/2012
Ed Hollowed	Wildlife Biologist	Special Status Wildlife Species	2/14/2012
Zoe Miller	Ecologist	Special Status Plant Species	1/16/2012

REMARKS:

Cultural Resources: The area of the proposed EnCana gas well pad (L24 496), and the associated access roads and pipeline locations (DOI-BLM-CO-110-2012-0021-DNA) have been completely inventoried at the Class III (100 percent pedestrian) level (Conner and Davenport 2009, Compliance Dated 12/3/2009; Connor and Davenport 2011, Compliance Dated 12/22/2012). The inventories did not record any cultural resources; however, there always remains the potential to disturb previously undetected resources. Abundant previous Class III cultural resource inventories have been performed in the general vicinity and have documented very few cultural properties. This low site density is likely attributed to steep terrain and abundant brush and ground cover. The previous NEPA document DOI-BLM-CO-110-2009-0229-EA adequately addresses effects to cultural resources.

Paleontology: The Proposed Action is located in an area mapped as Uinta Formation (Tweto 1979) which the BLM, WRFO has classified as a PFYC 4. These formations are known to contain a high occurrence of significant fossil resources. The previous NEPA document DOI-BLM-CO-110-2009-0229-EA adequately addresses effects to paleontology resources.

Native American Religious Concerns: No Native American Religious Concerns are known in the area, and none have been noted by Northern Ute Tribal authorities. Should recommended inventories or future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken.

Threatened and Endangered Wildlife Species: The development of this well pad was explicitly identified and remains consistent with the most current Encana-CPW wildlife mitigation plan (also coordinated with WRFO). Similar to mitigation designs and philosophies discussed in the parent documents (also see Item four above (DNA question number four)), the Proposed Action is situated in a 60-acre ridgeline sagebrush park that is connected to more expansive and continuous sage-grouse habitats to the south by a narrow linear corridor (550 meters long by 100 meters wide) whose entire length is bisected by a maintained all-weather primary access road (Sprague Gulch Road). The pad and pipeline route lie within this historic ridgeline road corridor, but have been sited to effectively minimize further sage-grouse habitat involvement. The pad has been shifted to corner on the slope-break margin of a sagebrush park as far as possible from the

ridgeline center, thereby eliminating the effective loss of additional habitat beyond the direct involvement of seven acres (reduced to two acres with interim reclamation). With the exception of 300 meters necessary to cross the ridgeline (2.5 acres), the multi-phase gathering system corridor remains on the edge of suitable habitat (at slope-break) or entrenched in unsuitable habitat (heavy deciduous shrubland) for its remaining length.

The project area lies within four miles of three active leks (2.9, 3.0 and 4.1 miles to the east). This particular habitat patch has not received use by birds telemetered as part of ongoing CPW sage-grouse research, but several contacts located in similar habitat fragments one to two miles down-ridge in late April and early May of 2007 and 2008 attest to the possibility of its use. These birds apparently made only brief use of these sites and in both cases returned to spend the summer and fall/winter on more expansive habitats to the west (primarily Barnes Ridge). This behavior suggests that pioneering birds investigate nesting habitat (via flight) in the vicinity of the Proposed Action (from leks on Barnes Ridge), but that habitat conditions may not be conducive to sustained occupation. In the less likely event of nesting taking place by one to several birds in this habitat patch in 2012, initial pad development in May 2012 would certainly fail these attempts. However, the duration of drilling and completion activity for 28 wells would likely span two nesting seasons regardless of how the drilling was scheduled and render nesting season deferrals ineffectual.

Threatened and Endangered Plant Species: The Proposed Action would have no conceivable influence on special status plant species or associated habitats.

MITIGATION:

1. Applicable Mitigation brought forward from DOI-BLM-CO-110-2009-0229-EA (Story Gulch Well Pads (2)) is attached as Appendix A.

COMPLIANCE PLAN: On-going compliance inspections and monitoring will be conducted by the BLM White River Field Office staff during and after construction. Specific mitigation developed in this document will be followed. The operator will be notified of compliance related issues in writing, and depending on the nature of the issue(s), will be provided 30 days to resolve such issues.

NAME OF PREPARER: Jay Johnson

CONCLUSION

Based on the review documented above, I conclude that this proposal conforms to applicable land use plan and that the NEPA documentation fully covers the Proposed Action and constitutes BLM's compliance with the requirements of the NEPA.

REFERENCES CITED:

Conner, Carl and Barbara Davenport
2009 Class III Cultural Resources Inventory Report for Four Proposed Liberty Well Locations (M30 495, B36 496, D36 496, and F25 496), at Central Distribution Point (J25 496), and

Related Linear Routes in Garfield County, Colorado for EnCana Oil and Gas (USA) Inc.
Grand River Institute, Grand Junction, Colorado. GF.LM.NR914, BLM# 09-11-36.

- 2011 Class III Cultural Resource Inventory Report of Twenty Proposed Well Locations and Related Linear Routes In the Double Willow Unit (D31-495, L16-496, 117-496, P17-496, B19-496, J20-496, C22-496, F22-496, N23-496, 1(24-496, L24-496, M24-496, P24-496, F26-496, 126-496, 1(27-496, L27-496, M27-496, E34-496, M34-496) In Garfield and Rio Blanco Counties, Colorado for Encana Oil and Gas (USA) Inc. Grand River Institute, Grand Junction, Colorado. MC.LM.NR262, BLM# 12-11-01.

Tweto, Ogden

- 1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

SIGNATURE OF AUTHORIZED OFFICIAL:


Field Manager

DATE SIGNED:

03/20/2012

ATTACHMENTS: Figure 1 – Route to EnCana’s Proposed L24 496 well pad
Figure 2 - EnCana’s Proposed L24 496 Well Pad and Proposed Access Road
Figure 3 - EnCana’s Proposed L24 496 Well Pad and Proposed Pipeline
Appendix A – Applicable Mitigation Brought Forward from DOI-BLM-CO-110-2009-0229-EA

Note: The signed Conclusion in this DNA Worksheet is part of an interim step in the BLM’s internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.

Figure 1 – Route to EnCana’s Proposed L24 496 Well Pad

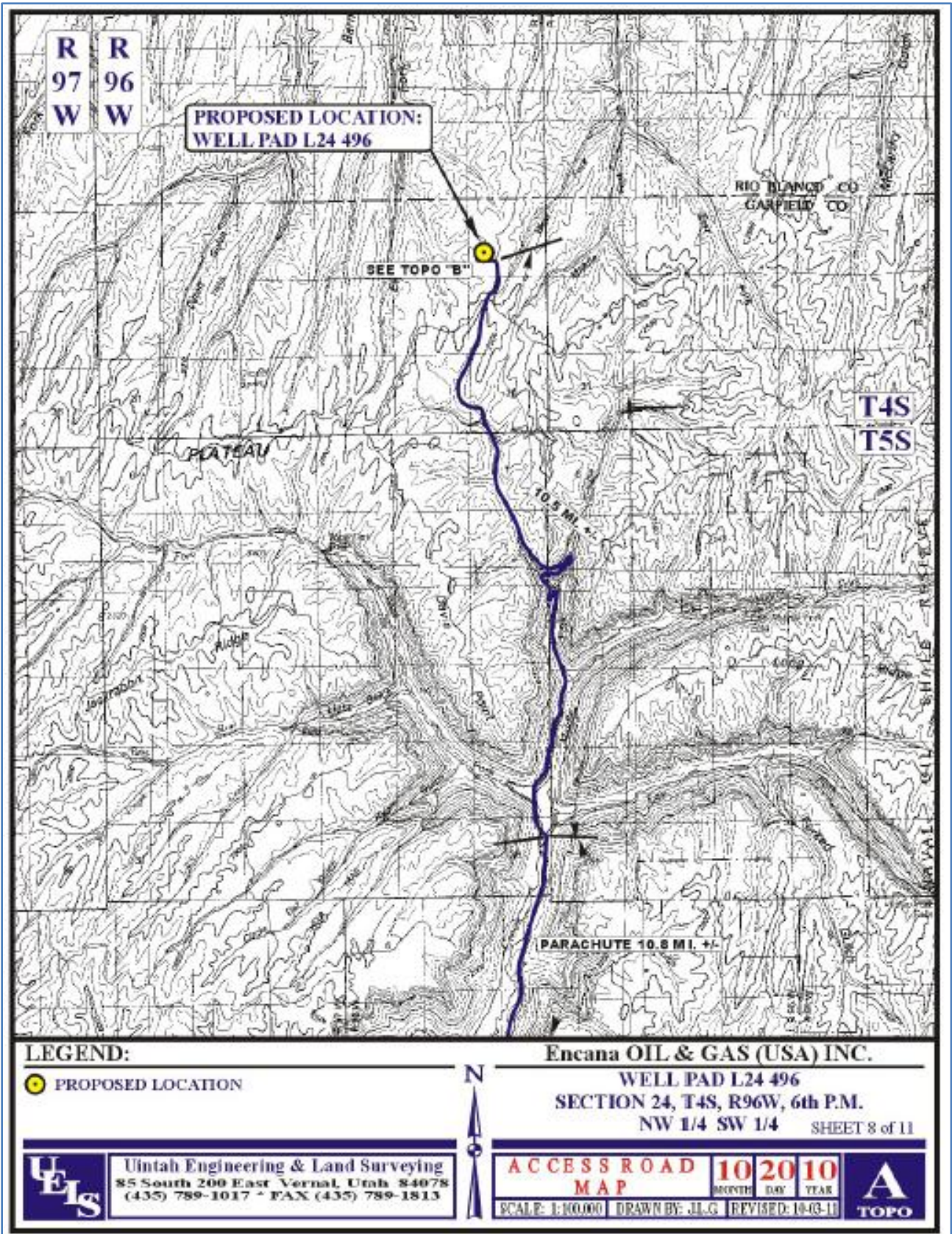


Figure 2 - EnCana's Proposed L24 496 Well Pad and Proposed Access Road

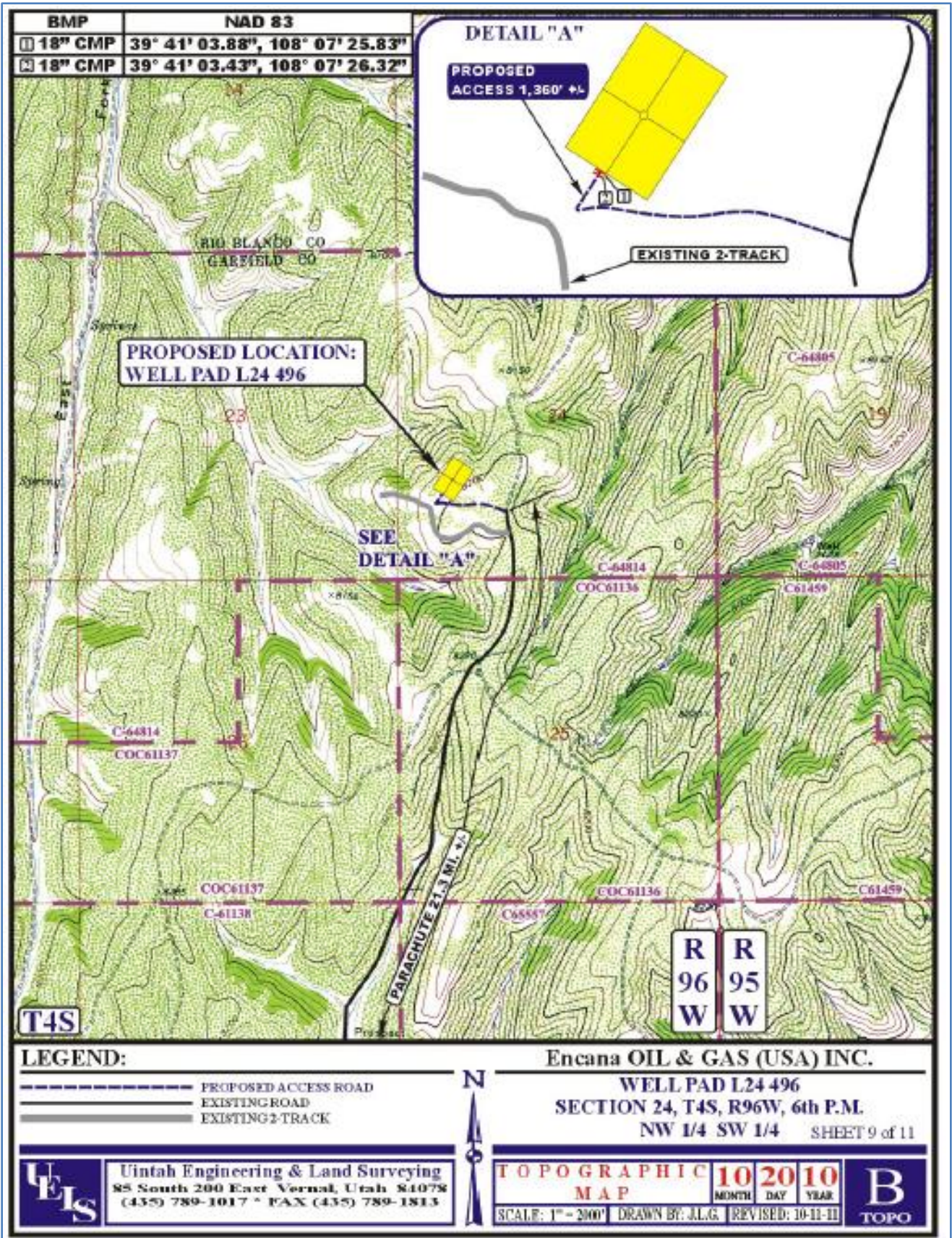
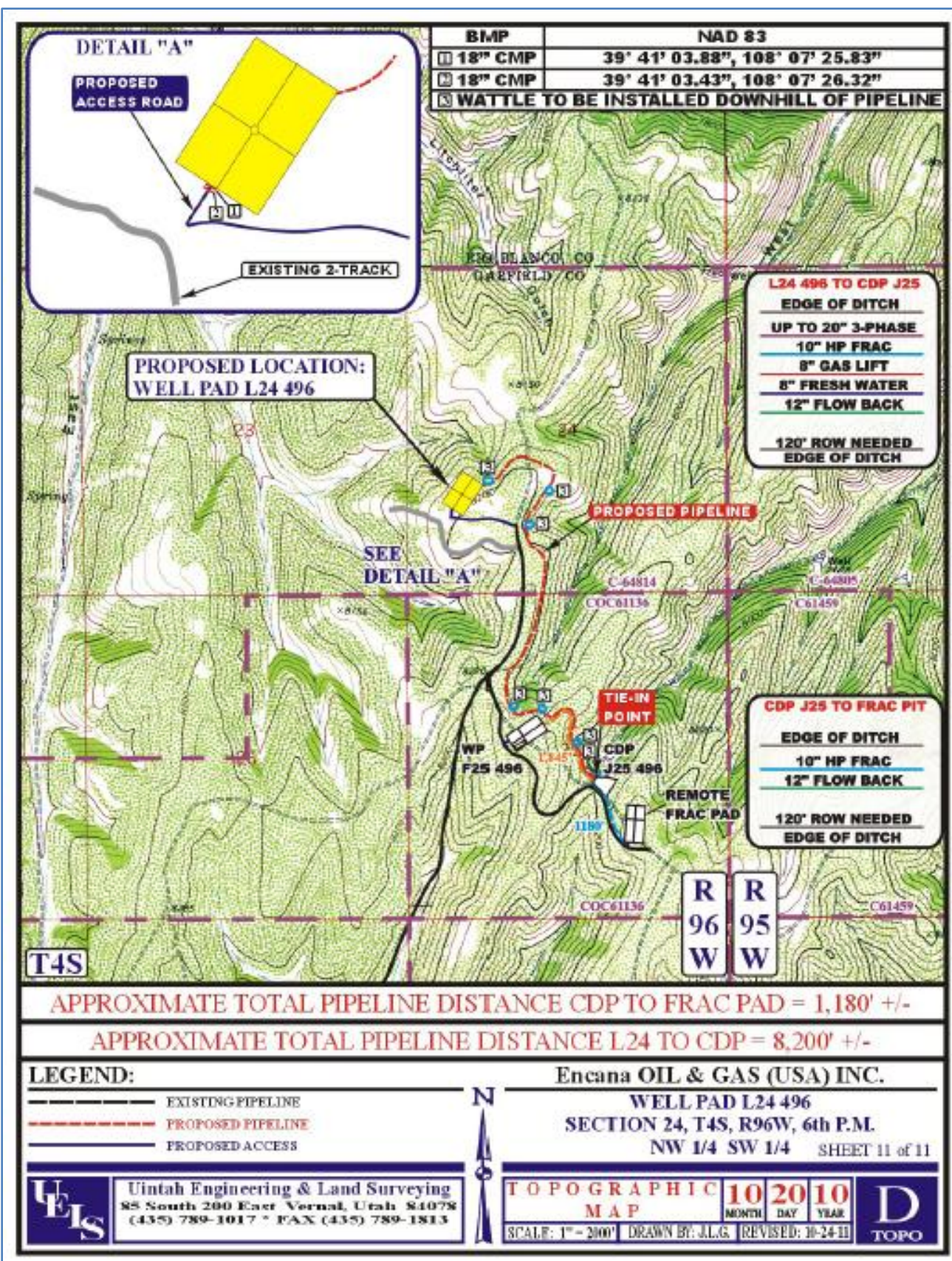


Figure 3 - EnCana's Proposed L24 496 Well Pad and Proposed Pipeline



MITIGATION MEASURES:

Air Quality

1. All access roads will be treated with water and/or a BLM approved chemical dust suppressant during construction and drilling activities so that there is not a visible dust trail behind vehicles. All vehicles will abide by company or public speed restrictions during all activities. If water is used as a dust suppressant, there should be no traces of oil or solvents in the water and it should be properly permitted for this use by the State of Colorado. Only water needed for abating dust should be applied; dust abatement should not be used as a water disposal option under any circumstances.

Soils

2. If erosion features such as rilling, gullyng, piping, and mass wasting occur at any time in the future on disturbed surfaces on public lands downstream from the project, the erosion features will be addressed immediately after observation by contacting the AO and submitting a plan to assure successful soil stabilization with BMPs to address the erosion problems.
3. When reclaiming the unused portions of the existing, re-routed roads to “BLM specifications”, the operator will rip or pit the old road bed to remove compaction and seed with BLM approved seed mix. The operator will also stabilize reclaimed sites with waterbars, fiber rolls, mulch and/or fabric as necessary to physically stabilize the soils until vegetation is established.
4. Based on policy required from Onshore Order #1, earthwork for interim and final reclamation must be completed within 6 months of well completion or well plugging (weather permitting). Therefore, when all the wells have been drilled and completed for all *approved* APDs for the pads described; the completion pits on each pad and the J25-496 Frac pit shall be closed and earthwork completed 6 months after well completion activities.

Wastes, Hazardous or Solid

5. Onsite sewage treatment needs to be approved by the BLM via Sundry Notice by the AO. Otherwise, all sewage should be disposed of off-site as per the Surface Use Plan.
6. A leak detection system will be required for the “frac pit” on the Frac Pad J25-496. Submit via sundry a revised diagram that show a leak detection system and design specifications for the type and frequency of monitoring.
7. The release of any chemical, oil, petroleum product, produced water, or sewage, etc, must be contained immediately, cleaned up as soon as possible, and reported by the project proponent to the Bureau of Land Management according to Notice to Lessees and Operators of Onshore Federal and Indian Oil and Gas Leases (NTL-3A).

Water Quality, Surface and Ground

8. Locate culverts or drainage dips in such a manner as to avoid discharge onto unstable terrain such as headwalls or slumps. Provide adequate spacing to avoid accumulation of water in ditches or road surfaces. Install culverts with adequate armoring of inlet and outlet. Patrol areas susceptible to road or watershed damage during periods of high runoff.
9. Keep road inlet and outlet ditches, catchbasins, and culverts free of obstructions, particularly before and during spring runoff. Routine machine-cleaning of ditches should

be kept to a minimum during wet weather. Leave the disturbed area in a condition that provides drainage with no additional maintenance.

Vegetation

10. Re-vegetate with the native seed mix number six (listed below) prior to the first full growing season following completion of drilling (unless a different seed mix is recommended in any of the wildlife sections or the surface owner requests a different seed mix). Seeding rates listed in the table below are shown as pounds of Pure Live Seed (PLS) per acre and apply to drill seeding. When drill seeding is not feasible (e.g., steep slopes, etc.), then broadcast seed using double the seeding rate followed by harrowing to ensure seed coverage. Applied seed should be certified and free of noxious weeds.

Seed Mix #6

Cultivar	Species	Scientific Name	Application Rate (lbs PLS/acre)
Secar	Snake River Wheatgrass	<i>Elymus wawawaiensis</i>	3
Primar	Slender Wheatgrass	<i>Elymus trachycaulus ssp. trachycaulus</i>	2
Sherman	Big Bluegrass	<i>Poa secunda ssp. ampla</i>	0.5
Canbar	Canby Bluegrass	<i>Poa secunda ssp. canbyi</i>	0.5
Bromar	Mountain Brome	<i>Bromus marginatus</i>	4.5
Maple Grove	Lewis Flax	<i>Linum lewisii</i>	1
Bandera	Rocky Mountain Penstemon	<i>Penstemon strictus</i>	0.25

11. All areas of the well pads not used during any production phase, including cut and fill slopes, should be re-contoured as much as possible to natural topography, and have topsoil redistributed where likely to revegetate successfully (e.g., along appropriate cut and fill slopes or at the top edge of the borrow ditches), where it will not be disturbed during regular maintenance activities.
12. Successful re-vegetation should be achieved within three years. Successful reclamation and re-vegetation is defined by the following:
 - A functioning vegetation community will present a minimum cover and composition of 80 percent of the Desired Plant Community as defined by the ecological site description or in relation to the seed mix applied. In cases where wildlife objectives are dependent upon presence of forbs within the community BLM will require their presence at the 80 percent calculation.
 - The functioning vegetation community established on the reclaimed site is capable of persisting on the site without continued intervention and will allow plant community successional processes to develop to the climax community.
13. The operator should monitor the project site for a minimum of three years after construction to detect the presence of noxious/invasive species. Any such species that occur will be eradicated.
14. Final reclamation of roads and well pads following abandonment should be achieved with the native seed mix noted above:
15. If it is determined that grazing is significantly hampering re-vegetation efforts, fencing of the well pad (including cut and fill slopes) to exclude livestock from the reclaimed areas will be necessary. Fencing will consist of braced corners with a 4 strand barbwire fence. Once reclaimed plant species are fully established on disturbed sites, fences and

cattleguards would be completely removed by the applicant. In the interim these fences and cattleguards must be maintained in a functional state by the applicant.

Invasive, Non-native Species

16. The operator should monitor disturbed areas associated with the Proposed Action for establishment of any noxious weed species. Monitoring shall occur until successful reclamation/re-vegetation has been achieved. The operator should eliminate any noxious plants which become established before any seed production has occurred.

Cultural Resources

17. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts on private lands without landowner permission. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the AO. Within five working days the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places,
- The mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary),
- A timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

18. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.

Paleontological Resources

19. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils on private lands without landowner permission. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the AO. Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

If the operator wishes, at any time, to relocate activities to avoid the expense of

mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

20. All excavations into the underlying rock formation must be monitored by an approved paleontologist at the time of excavation.

Visual Resource Management

21. Paint and maintain paint on all facilities approved with the Proposed Action to Covert Green (Standard Environmental Colors Chart CC-001: June 2008). Initial painting will occur within six months of installation.

Access and Transportation

22. All roads approved with the Proposed Action shall strictly adhere to the 2007 Gold Book fourth edition surface operating standards for oil and gas exploration and development.

**U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641**

DECISION RECORD

PROJECT NAME: EnCana Oil and Gas, L24 496 new well pad - 28 APDs

DETERMINATION OF NEPA ADEQUACY NUMBER: DOI-BLM-CO-2012-0021-DNA

DECISION

It is my decision to implement the Proposed Action, as mitigated in DOI-BLM-CO-2012-0021-DNA, authorizing the construction and maintenance of the L24 496 wellpad and associated road, pipeline and the drilling, maintenance and operation of the 8502D-23 L24 496, 8502E-23 L24 496, 8502F-23 L24 496, 8502G-23 L24 496, 8504D-24 L24 496, 8504E-24 L24 496, 8504F-24 L24 496, 8504G-24 L24 496, 8505A-24 L24 496, 8505B-24 L24 496, 8505C-24 L24 496, 8505D-24 L24 496, 8505E-24 L24 496, 8505F-24 L24 496, 8507A-23 L24 496, 8507B-23 L24 496, 8507C-23 L24 496, 8507D-23 L24 496, 8507E-23 L24 496, 8507F-23 L24 496, 8510A-23 L24 496, 8510B-23 L24 496, 8510C-23 L24 496, 8510D-12 L24 496, 8512A-24 L24 496, 8512B-24 L24 496, 8512C-24 L24 496 and 8512D-24 L24 496 wells.

Mitigation Measures

1. Applicable mitigation carried forward from DOI-BLM-CO-110-2000-0229-EA as listed in Appendix A.

COMPLIANCE WITH LAWS & CONFORMANCE WITH THE LAND USE PLAN

This decision is in compliance with the Endangered Species Act, and the National Historic Preservation Act. It is also in conformance with the 1997 White River Record of Decision/Approved Resource Management Plan.

PUBLIC INVOLVEMENT

The document (DOI-BLM-CO-110-2012-0021-DNA) was posted to the White River NEPA Register webpage on November 30, 2011.

RATIONALE

The Proposed Action with the applied mitigation conforms with the White River Record of Decision and Approved Resource Management Plan, is consistent with the analysis in "Story Gulch Well Pads (2)": well pads B36-496 and F25-496 in Environmental Analysis DOI-BLM-CO-110-2009-0229-EA and constitutes BLM's compliance with the requirements of NEPA.

ADMINISTRATIVE REMEDIES


State Director Review

Under regulations addressed in 43 CFR 3165.3(b), any adversely affected party that contests a decision of the Authorized Officer may request an administrative review, before the State Director, either with or without oral presentation. Such request, including all supporting documentation, shall be filed in writing with the BLM Colorado State Office at 2850 Youngfield Street, Lakewood, Colorado 80215 within 20 business days of the date such decision was received or considered to have been received. Upon request and showing of good cause, an extension may be granted by the State Director. Such review shall include all factors or circumstances relevant to the particular case.

Appeal

Any party who is adversely affected by the decision of the State Director after State Director review, under 43 CFR 3165.3(b), of a decision may appeal that decision to the Interior Board of Land Appeals pursuant to the regulations set out in 43 CRF Part 4.

SIGNATURE OF AUTHORIZED OFFICIAL:



Field Manager

DATE SIGNED:

03/20/2012